SUPPLEMENT.

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LAND INVESTMENTS IN THE UNITED STATES. WEST VIRGINIA:-PAST-PRESENT-AND FUTURE

BY C. S. BICHARDSON.

WEST VIRGINIA:—PAST—PRESENT—AND FUTURE.

BY C. S. RICHARDSON.

Although it has been long known that the western part of the "Old Dominion" contained mineral wealth far superior to the eastern portion, yst there has always been a want of confidence among capitalists to largely mrest in its lands; not that they entertained any doubts on the mineral values they contained, for this has been set at rest beyond all controversy for many years past, but from unequal or unjust administration of the laws and extreme political differences, while taxation was uniform throughout the State, or supposed to be, although the "negro stock" was never fairly taxed; yet the internal improvements were almost exclusively confused to the sestern part of the country. There can be no better proof of this than the internal improvements were almost exclusively confused to the sestern part of the country. There can be no better proof of this than the old absence of central lines of communication, for with the exception of two short brackes of the Baltimore and Ohio Ralway, while cross a narrow portion of the State at its northern end, there is not a railway in operation from the Allegany Mountains to the Ohio River; while in the East the country is intersected with roads in every direction. The same disparity exists in its lines of water communication. The great James River and Kanawha Canal, as projected by and commenced under the assiptes of the James and Atlantic seaboard, was never carried to the season of the sea

of blending their first banner thrown to the breeze, bearing the soul-inspiring inscription, "The Free State of West Virginia." Such is a brief outline of the history of the jest, we will now take a view of her—

PRESENT PROSPECTS.—West Virginia may justly be called a land of hills and valleys, for there is scarcely a plain one mile in width throughout the State; it is, therefore, not an agricultural country, although many parts are susceptible of conversion into extensive grazing districts, on which large herds of cattle can be and are produced. Its chief wealth lies in the abundancy of its minerals. There are ten prominent rivers intersect the State; all of these flow into the Ohio, which forms its western boundary; they are the Chest River, Tygarts valley River, the West Fork of the Monongahela, Little Kanawha, Elk, Big Kanawha, Gauley, Coal River, the Guyan, and the Big Sandy, the latter dividing the State from Kentucky. The countries bordering each of these streams differ somewhat in the respective products and commercial aspects. The Cheat, Tygarts, and West Fork, which are but large branches of the Monongahela, a river whose union with the Allegany forms the noble Ohio, contribute their coal and from ores to supply the grass allevial soli and abundantly productive. The Little Kanawha, at whose conference with the Ohio stands the flourishing and rapidly extending little town of Particular, abounds in petroleum, and has been often considered the centre of the oil distriction the Big Kanawha at Charleston. This valley is destined to become the great highly of the State; it is celebrated for the richness and purity of its Cannel coal, The Chief of the State; it is celebrated for the richness and purity of its Cannel coal, The Chief of the State; it is celebrated for the richness and purity of its Cannel coal, The Chief of the Chief of the State; its required to the State, is navigable for 100 miles several stemboras the production, and coasionally up to the Falls, 40 miles above. The navigation is being rapi

recently returned from an exploring expedition on its upper branches, and can give a very invourable account of the "oil prospects," having met with numerous gas and oil representations of the stately timber of its deep valleys. The studil-poplar, a wood in great request here, is found of coloseal size, we have seen trees from 5 to 6 ft. diameter at the butt, nearly 100 ft. high to the first limb, and as straights as sine. At one place, in Big Ugir Creek, a branch of Mud River, we estimated three might be out 5000 cubic feet of marketable is a very mild every kind of agricultural produce may be raised to advantage. The Big Sandy River forms the dividing line between the two States of Virginia and Kenteky; it should every kind of agricultural produce may be raised to advantage. The Big Sandy River forms the dividing line between the two States of Virginia and Kenteky; it should be supported to the state, and the state of the state, is a city of considerable importance; it is the terminus of the Baltimore of various kinds. As a commercial entrepôt it is not well located, seeing at the very extreme northern corner of the State, it has a prosperous and University for the state, and the state, it has a prosperous and University for the state, and the state, it has an prosperous and University for the state, and the state, and the state of the state

THE FUTURE—Our view in this instance can only be admitted speculatively, although the data is one of fact, for the "national," the germ of a country's greatness, is most unquestionably here, and that it is no myth is certain, for it can be seen and valued. It covers the surface of the land above, is inherent with and permeates the carboniferous rocks below; it only awaits investigation to bring conviction. Like Joshua of old, when paring forward his duplous troops, we would recommend his citation from the song of above, is inherent with and permeates the carboniferous rocks below; it shellers to detirmental to its carrying trade will be removed. Kanwho take the case of post-section of the state of

to bear, and has done more to fetter the progress of development than anything else; nevertheless, the remedy is simple and certain. We would say to the Government, ascertain from each owner, or reputed owner, the extent of his claim; let him trace it on the country or township map, then tax him to the full amount. Let there be no blanks or open spaces unassessed. No man will long willingly pay the burdens on another man's land, and the actual virulency of the disease in a very short time will work out its own remedy. The land titles thus once made clear and indisputable, there is no safer medium for investment, and capital would flow into the country from all directions. Such is the opinion of men who have taken a careful and dispassiontal view of the present status. Here they see a country without poor-laws or poor people, where abour has to solicit the favours of the labouror, a land where a beggar is looked upon as a phenomenon, and vagrancy as a crime. With a climate the most salubrious, health-ful, and agreeable on the Continent, where neither the heat of summer or old of winter is inconveniently excessive, and epidemics are unknown. This is a beautiful land. A new era is about to dawn on its existence. The people have a bright career before them. They start unencumbered with any material State debt; their unwavering loyaity to the general Government, their liberal sentiments as expressed and aid rendered in the great cause of universal freedom, has not only called forth the plaudits of our great statesmen, but secured to them a host of admiring and earnest friends in every civilised country, both at home and abroad. Such, then, is the political, social, and commercial horoscope through which we now view the present, and compute the prosperity and happiness of the future. Counter influences may somewhat retard her rapid progress, but our predictions will be sadly at fault if West Virginia does not eventually become one of the most attractive, influential, and prosperous States of the Union.

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GALVANISED IRON AS A SHIPBUILDING MATERIAL.

It has long been admitted that, although iron is, undoubtedly, the most uitable material for the construction of ships, the readiness with which it fouls in sea water gives rise to much inconvenience; the consequence has been that almost innumerable compositions have from time to time been proposed to remedy the evil; yet the success obtained has been but very limited. A series of experiments have, however, recently been undertaken by Professor Crace-Calvert and Mr. Johnson, which seem to have led to the discovery of an effective remedy, and one which can be readily applied. The reliance which can be placed upon all experiments conducted under Prof. Crace-Calvert's supervision are too well known to need comment, it

Prof. Crace-Calvert's supervision are too well known to need comment, it will, therefore, suffice to record the experiments themselves.

They took 20 square centimetres of each metal, which they cleaned with great care and attention, in order that the action of the sea water might have its full effect; then two plates of each metal were placed in separate glass vessels, and immersed in equal volumes of sea water. After one mouth the plates were taken out, and any compounds that had adhered to the surface carefully removed; the plates were then dried and re-weighed, and the loss estimated. To render their results of more practical value, they calculated the action of 100 litres of sea water upon 1 square metre of each metal, and found the amounts of metal dissolved to be—Sieel, 29·16 grammes; iron, 27·37; copper (best selected), 12·96; copper (tough cake),

they calculated the action of 100 litres of sea water upon 1 square metro of each metal, and found the amounts of metal dissolved to be—Steel, 29·16 grammes; iron, 27·37; copper (best selected), 12·96; copper (tough cake), 13·86; zinc, 5·66; galvanised iron (Johnson's process), 1·12; block tin, 1·45; and stream tin, 1·45 grammes. Of virgin lead and of common lead the quantity dissolved was merely a trace. The conclusions to which these results obviously lead are that steel is the metal which suffers most from the action of sea water, and that iron is most materially preserved from the action of sea water when coated with zinc, and, therefore, not only should iron exposed to the action of sea water be galvanised whenever this is practicable, but, in their opinion, it would amply repay shipbuilders to use galvanised iron as a substitute for that metal itself.

The extraordinary resistance which lead offers to the action of sea water naturally suggests its use as a preservative to iron vessels against the destructive action of that element; and although they are aware that pure lead is too soft to withstand the wear and tear which ships' bottoms are subjected to, still they think that an alloy of lead could be produced which would meet the requirements of shipbuilders. Feeling that experiments made with a limited amount of sea water might not be a fair criterion of the action of the ocean upon metals, they repeated their experiments upon plates of 40 centimetres square, which were immersed for one month in the sea on the western coast (Fleetwood), taking the precaution that they should be constantly beneath the surface of the water, and suspended by flax rope attached to a wooden structure, to prevent any galvanic action taking place between the plates and the structure to which they were attached. The amounts of metals dissolved were—steel, 105·31 grammes; iron, 99 30; copper (best selected), 29·72; zinc, 34·34; galvanised iron (Johnson's process), 14·42; lead (virgin), 25·69; and lead (common), 25·85 grammes.

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stance than when the metals were placed in a limited amount of water at the laboratory. These results are due, probably, to several causes acting at the same time—that the metal was exposed to the constantly renewing surface of an active agent; and that there was also a considerable friction exerted on the surface of the plate by the constant motion of the water, there being at Fleetwood a powerful tide and rough seas. What substantiates this opinion is that the lead plates undoubtedly lost the greater part of their weight, not by the solvent action of the sea water, but from particles of lead detached from them, in consequence of their coming in contact with sand and the wooden supports to which they were attached; but this cause of destruction having been observed with lead plates, it was afterwards carefully guarded against in the case of all the other metals. Another series of experiments was likewise made, which cannot fail to prove of great value in connection with the application to ships' bottoms of copper and yellow metal sheathing—the action of sea water upon various brasses was carefully tested. They immersed for one mouth plates of various alloys in that fluid, and it was found that the action of 200 litres of sea water upon one square metre of surface was: stance than when the metals were placed in a limited amount of water at the

sea water upon one square metre of surface was:-

This table shows how very differently sea water acts upon divers brasses, and the influence exercised upon the copper and zine composing them, by the existence in them of a very small proportion of another metal; thus, in pure brass the zine is most rapidly dissolved (which, en passant, is the contrary to what takes place in galvanised iron), whilst it acts as a preservative to the copper. Tin, on the other hand, appears to preserve the zine, but to assist the action of sea water upon the copper. The great difference between the action of the sea water upon pure copper and upon Manux. ence between the action of the sea water upon pure copper and upon Muntz metal seems to us to be due not only to the fact that copper is alloyed to zinc, but to the small proportion of lead and iron which that alloy contains;

and there can be no doubt that shipbuilders derive great benefit by using it for the keels of their vessels. They were so surprised at the inaction of sea water upon lead, that they were induced to compare its action with that of several distinct varieties of water—Manchester Corporation water, well water, distilled water in contact with air, and the same deprived of air; and the figures obtained confirmed their previous result, that sea water has no action on lead, except what arises from friction.

Meetings of Public Companies.

LONDON AND COUNTY BANK.

The half-yearly general meeting of shareholders was held at the London Tavern, on Thursday,—Mr. WILLIAM CHAMPION JONES in the chair.

Mr. CLAPHONO (the secretary) read the notice convening the meeting, and avertising columns. It showed that the gross profit for the balf-year (after making provision for bad and doubtial debts), amounted to 284,8601, which, added to the credit half of the half-year, after payment of all charges, inside 300,801. The nett profits for the half-year, after payment of all charges, inside of 300,802. The nett profits for the half-year, after payment of all charges, inside of 300,802. The nett profits for the half-year, after payment of all charges, inside of 300,802. The nett profits for the half-year, which will amount to 111,700; 8s. 6d., and inave 13,601. The profits of the half-year, which will amount to 111,700; 8s. 6d., and inave 13,601. The profits of the half-year, which will amount to 111,700; 8s. 6d., and inave 13,601. The profits of the payment to profit and to save profits of the payment of the profits of the half-year ending June 30. Since they last assembled together a great deal had happened in the commercial world that had given commercial affairs a very axiloss aspect—endinent mercantile firms, long known as remote together; and, concurrently was to wealth, had versues had taken place in the markets in India which could not, perhaps, be considered existent, or co-existent, with the average condition of the international trade of the country. Under such circumstances, the directors withheld the assurances which they believed to be due to the proprietory and the profit and loss, for the proprietory and the profit and loss of the bank was provided, and to such a such provided the proprietory of the propri

CONSOLIDATED COPPER MINES OF COBRE.

The half-yearly general meeting of shareholders was held at the company's offices, Gresham House, on Monday,
Mr. H. RIVERSDALE GRENFELL, M.P., in the chair.
The report of the directors, which will be found in our advertising columns, and an abstract of which was published in last week's Journal,

columns, and an abstract of which was published in last week's Journal, was taken as read.

The Chairman thought that everything material had been remarked upon in the report. The only reason of the present unsatisfactory state of affairs was one which would always have an effect—the price of the article in which they dealt. He stated at the last meeting that he did not expect a rise, but, at the same time, he must admit that he did not expect a rise, but, at the same time, he must admit that he did not expect as great a fall. The fall had taken place principally owing to the large quantity of copper coming in from the south-west coast of South America, and the failing off in the demand for India. Since 1844 or 1845 copper had meer been so low as at the present moment. The last dividend, he might observe, was paid upon an estimate, made in the manner which had always been practised by the company, of the amount to be realised from the cree on their way to this county, and unfortunately the amount estimated had not been realised. They considered that they would received but 4458 tons. This was owing to the flooding of the mine, but they had received but 4458 tons. This was owing to the flooding of the mine, but they were informed that the cause of the inconvenience was now removed, and that they were informed that the cause of the inconvenience was now removed, and that they were informed that the cause of the inconvenience was now removed, and that that the profits would be larger in proportion to the increase in the returns. They had no progress to report in the jaw-suit with the railway company, and he was afraid that the profits would be larger in proportion to the increase in the returns. They had no progress to report in the law-suit with the railway company, and he was afraid to the question asked him at the end of the last meeting with reference to the reserves, he since found that he did not exactly understand the question, and replied that in a country so far distant as Cuba it was impolitic not to get

ptod. hought there was another item which affected the profitable work-the charge for freight both by rail and ship. He would like to know

ing of the mine—the charge for freight both by rail and ship. He would like to know whether it was under the consideration of the directors, and whether any steps had been taken to increase the percentage of the ores shipped?—The Chariban said that several inventions had been submitted to them, but, as yet at least, they had not adopted any. Mr. FERRER, in reply to shareholders, stated that the charges upon the ore was 41, per ton for freight and railway charges to Swamses. The railway was 12 kilometres in length, and the price paid for carriage was \$6½ per ton. —The Chariban explained, in answer to a question, that the company were bound to carry by the railway, and that in one instance where another mine adopted another mode of carriage they had to pay the railway company the same amount as if the ore had been carried by them. —Mr. FERRER continued that at the time the contract with the railway company was made it was especially favourable to their company, as they had been paying \$13 per ton for getting down their ore, but at the present time the charge of \$645 was no doubt exorbitant, and, indeed, Mr. Arrieta, who had since died, had promised to reduce the carriage as the money was reimbursed for the cost of the line. Up to this time, however, the charges had not been raduced. The company (the Cobre) had obtained a decree of the Captain-General in their favour, and a new tariff should be prepared, but the railway company gave notice of appeal, and the decree had not been carried out. He believed that by the time he reached Cuba they would have a judgment one way or the other, after which recourse could be had to Madrid.

Mr. J. F. Hengecck had known sheet copper down to \$41, with 3 per cent. off. There was no doubt great stagnation in the trade, but he thought that in the present state of affairs it would be steer not to ship any ore to this country.——The Charman explained that if they did not send their ore back they could not carry out their coals at less than 11, per ton for freight.

Mr. Harks aid not s

nes and works.

7. HAYES did not see how they had paid the last dividend. It appeared to him that

they were 18,0001, to the debit when they decided to pay the dividend. Taking the accounts for 1864, they seemed to have received only 148,0001, and to have disbursed out of that 135,0001. He saw that they had sent 2800 tons of ore to Swanses, valued at 21,0001, and upon this they had received 20,0002, advance. This was carried out in the accounts as an asset of 10001, he thought this did not show that the 20,0001, had been received. He observed, too, that they had soil 150,0001, worth of ore, of which 50,0001 worth was sold at public saie, and 100,0001, worth by private contract; he would much prefer all to be soid publicly, as he never knew a private saie in which the seller was not dannified. The CHAIRMAR said that the audited accounts were simply the receipts and expenditure, and that the 10001. He dividend at the last meeting was precisely the same as if the 21,0001, had been placed on one side and the 20,0002, on the other. The profits in the last year were 13,0001. The dividend at the last meeting was declared apon an estimate similar to that which had always been taken, and had they known what they know now it would, no doubt, have been better if that dividend had not been made. They had fair reason to believe that they could have paid the dividend, but he would not deary now that the dividend had better not have been paid. With regard to the sales by private contract and by public ticleting, he might state that the result of selling the greater proportion by private sale was that they had made a profit instead of a loss; they were enabled through selling by private contract to sell the moment the cargo arrived, and as they were selling in a falling market they were enabled to make a better thing of it. They were bound on any day, by enquiry of any broker, as well as at the ticketing.

Mr. Heddock believed that the old mine was not exhausted, and the ticketing.

Mr. Heddock believed that the old mine was not exhausted, and that the new one was opening out well.—Mr. Franker said that they would have bade

MARIQUITA AND NEW GRANADA MINING COMPANY.

The report and accounts were then put and unantinously adopted; Mr. Henry Druce was bailtied for and elected director; Mr. W. H. Challis was deceled auditor; and the small compliminatory voice terminated the proceedings.

MARIQUITA AND NEW GRANADA MINING COMPANY.

The annual general meeting of shareholders was held on Monday, at the London Tavern, Bishopsgate,—Mr. R. A. ROUTH in the chair.

The SCREERAN having read the notice couvening the meeting;
The CHAIRMAN observed that there was not much special interest in the report which was presented upon the present occasion; however, he ist bound to say that noticing at all discouraging; but, on the contrary, much which warranted them in looking forward hopefully to a bright future. (Hars, hear.) During the past year there and, both on this side and at the mitee, seen great difficulties in the way of a successful overcome, had been the financial difficulties on the side; but, happly, the difficulties, both here and at the mines, save every prospect of a speedy and, he hoped, antianctory occurrence, and she much financial difficulties on the side; but, harply, the difficulties, both here and at the mines, save every prospect of a speedy and, he hoped, antianctory occurrence, and so the company, and those loateruly sent out very strong and unmission of the company, and those loateruly sent out very strong and unmission of the company, and those instructions had been carried into effect, out when the side of the company of the present one of the company, and those loateruly sent out very triving and unmission of circumstances, came by the last mail, and arrived in this country politive instructions should be concentrated upon trily developing those works they were at present engaged upon, so as to realise as speedily as possible a productive of the company of the property, and the productive property, and the surface of the property, and the surface of the property and the property and

the Aguas Claras would yield even far better results than the Santa Ana. The lode are made with throughout, and produced from 250 crs. down to sand whether any steps had been — The Csaniman said that seve part and produced from 250 crs. down to said whether any steps had been — The Csaniman said that seve part and the same width throughout, and produced from 250 crs. down to said the same part and the same width throughout, and produced from 250 crs. down to said the same part and the same width throughout, and produced from 250 crs. down to said the same part and the same part and the same width throughout, and produced from 250 crs. down to said the same part and the

He arged upon the board that no more money should be sent out, except it was and for the purpose of extracting ore from the mine.

The Chaiman said that the directors had already anticipated the wishes of alexholders, for in the report it was stated that "the directors have recommended the unsholders, for in the report it was stated that "the directors have recommended the unsholders, for in the report it was stated that "the director have recommended the unsholders, for in the report it was stated that "the director have recommended the unsholders, in the control of the caterial sailing monthly informed that the idea is improving in quantity and quality fields, and the sends at the open that rich ground from level to level are taken away, they see no just reason why the entire force shed as the upper sapes deep workings until steady monthly profits are made. The Santa Ana property extension and the profit of the selection of the commenced; by the last mail they received 24001. Santa Ana they were now wering at a profit, which would get better month by month.

The report was adopted, and the retring directors and anditors having been reducted the usual compliment to the Chairman, and a vote of thanks to Mr. Birchall, concluded the business of the meeting.

ENGLISH AND AUSTRALIAN COPPER COMPANY.

The usual half-yearly general meeting of shareholders was held at the London Tavern, Bishopsgate, on Thursday,
Mr. Routh in the chair.

London Tavern, Bishopsgate, on Thursday,
Mr. C. B. ROGERS (the secretary) read the notice convening the meeting.
Mr. C. B. ROGERS (the secretary) read the notice convening the meeting.
The CHAIRMAN explained that the object of the meeting was simply to read the notice convening the meeting receive statement of progress made during the past six months. The quantity of ore designed to the secretary of the meeting was simply to reveal the secretary of the secretary of the secretary of the secretary of the same period by the Burra Burra Company in the six months to bee. 31 was 44 months and received 417 tons of regulus, and 925 tons of ore from other mines, and walliance Mines. The produces of the Burra Burra was below the average, but, as his fried was reproduces of the Burra Company to raise ore from the desper levels at present prices. They had not seen the reaction in the metal trades which it was antieved would take place at the termination of the American war; but he had not doubt that it would late space and if copper did not rise to the position it occupied some years ago, it would cortally rise again to a good price. The directors had much satisfaction of content and of copper did not rise to the position it occupied some years ago, it would cortally rise again to a good price. The directors had much satisfaction, and other intensic concerned, all obstacles to the registration of this company under the Limited Liability Act," upon the terms originally proposed by the board, had been removed. These terms are emboded in the following resolutions, unanimously agreed to by the directors, and now recommended for the satisfaction of the proprietors:—I. That this company he restered as a company limited by shares, under the provisions of "the Joint-Stock Companies Act, 1862."—2. That for the purpose of adjusting the splain of the changes at a congress more nearly with the actual assets, the nominal value of the share holders is berely limited by shares, and the provisions of "the Joint-Stock Company, he are the p

PORT PHILLIP AND COLONIAL GOLD MINING COMPANY.

A half-yearly general meeting of shareholders was held at the London lavern, on Monday,—Mr. J. D. PowLes in the chair.

Mr. C. H. FIELDER (the secretary) read the notice convening the meeting, and the minutes of the last were approved.

The CHAIRMAN said the proprietors had been already informed, by the last weat round of the company's financial position. And to show the

ing, and the minutes of the last were approved.

The CHAIRMAN said the proprietors had been already informed, by the circular sent round, of the company's financial position. And, to show the actual condition and prospects of the mine, he could not do better than to substite that the yield had been extremely low, the lowest indeed that they had had with one exception; and the expenditure had been high, caused mainly from the bilt of the quartz being raised from "drives," there being during the month but two slopes at wrt, and it became necessary to employ all the men there could be found room for to open aground, and prepare fresh stopes for future work. The advantage of that was already being felt in the increased supply of quartz, and the cost of raising should shortly show a diminution. There was, however, a good deal of work of an expensive nature to a time surface of the mine to complete the fitting of the south shalt before quartrooid be raised there and sent to the reduction works. Mr. Bland further stated that be had urged the important question of the supply of material upon the mining manager, and he had reason to hope that in future they should be better supplied. There were now more stopes opened in the mine, and the surface works at the south shaft were so far completed that a large quantity of quartz was being raised, and they might soncepte: a large addition to the supply from this end of the mine. The sdvices, dated May 24,state-few months' work, which has quite taken us by surprise, no one connected with his mine anticipating any failing off in the yield. An improvement has, however, sired; taken place, and we are in hopes that it will continue, as most of the stopes and few heads are reported as looking well. The supply of mineral is also better, and I hope way are sufficient to keep our stamps fully employed. In the management of the similar our attention has hitherto been directed towards getting the increased supply of siles had and regular work, I am in hopes we shall be able to effect som

First week... 879 Second week... 879 Second week... 879 Second week... 943=1822 tons..... 520 2 0 Third week... 1111 Fourth week... 1213=2324 tons...... 646 18 0 5 dwts. 13 grs.

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of the mine on are being atopes. On e on the Old Mo. 3 level, her stope on will, I trust, a amount of 865:—No. 4 feet deep, rolouse resi, No. 3 level, sp. 770 tons; resi, 230 fmit

AUG. 5, 1865.]

SUP

and precept a run of poor quartz, and he apprehended that no calculations that the process of the process of the spot, could prevent the recurrence of such circulations in the conduct of mining affairs. It was true that the yield was low, but a more in the conduct of mining affairs. It was true that the yield was low, but are months in 1864, when a profit was realized. There was one sense while could be no doubt that under the old management too will near own hands.

There could be no doubt that under the old management too will near own hands. There could be no doubt that under the old management too in the old dead, or reserved this. They had now entire control of the mines, at sense of dead, or reserved this. They had now entire control of the mines, at some of dead, or reserved this. They had now entire control of the mines, at some of dead, or reserved this. They had now entire control of the mines, at some of dead, or reserved the sense of the comparison of the comparison of the sense of the comparison of the company, he the Chairman) might mention that there was in hand and the sense of the company, he the Chairman might mention that there was in hand to be deducted but 1804, the amount of income in the company and the sense of the company that the control of the profit made up to the end of May. At this of the company are the day is impossible to find a company more free from risks or returns—noded, it was impossible to find a company more free from risks or the company specified and in the colony section of the company of the company of the profit made up to the end of May. At this of the conduction of the company that the condition is the conduction of the company that the condition is the conduction of the company that the condition of the company of the company of the profit made up to the end of May. At this of the conduction of the company of the profit made up to the en

VICTORIA (LUNDON) MINING COMPANY.

An extraordinary general meeting of shareholders was held at the Lonten Taren, on Monday,—Mr. J. D. Powless in the chair.
Mr. C. H. FIELDER (secretary) read the notice convening the meeting.
The Chairman said the result of the company's proceedings for the last
is months was embodied in the last letter received from Mr. Bland, dated
the not which was as follows:—

ix months was embodied in the months was as follows:—

May 24, which was as follows:—

**As this letter should reach England before the half-yearly meeting in July, I sen

**Second of receipts on dividend account, and profits made on the sale of shares to

he present date, as follows: Ditto since received		0=	£515	14	0	
enlayong Company—Division for that-year 480	0	0=	910	0	0	
mikaw Company—Dividend for half-year			66 25	0	0	
intingbool tribute account			74		6	
ndt on sale of 1 Honsnaw mot on sale of 1 Golden Empire			131	16	8	
			£1740	10	9	

Total£1740 19 2
The following is a list of all the investments in which the company is engaged, made to May 24, 1855:—

following is a statement of the market price of such of the foregoing

Name of company.	Presen	t pr	lce	of i	share.	Total v	alu	e.
Baninyong Company	£	40	0	0	********	£8000	0	0
Great Extended Company			15		********	1950	0	0
Royal Saxon Company	*****	21	10	0		1710	0	0
Bonshaw Company		33	0	0		4356	0	0
North Grenville Company		35	0		********		0	0
Clunes Quartz Company	5	200	0				0	0
Cerinella Company		16	13	0	********	5000	0	0

be esserved that there is a considerable advance on the cost price to the company mid of these shares. On the other hand the investment in the Avoca Company, disting to 1852, 2.8, 1d., is a loss. It will be seen that the balance of these market is sevent thousand pounds in favour of the company, deducting the loss in the Campany.

saing to 1252. Ze. 1d., is a loss. It will be seen that the balance of these market is a saveral thousand pounds in favour of the company, deducting the loss in the sea Campany.

It is last meeting, when the newly-created shares were issued, credit was sent out to sea Campany.

It is last meeting, when the newly-created shares were issued, credit was sent out to sea Campany.

It is last meeting, when the newly-created shares were issued, credit was sent out to sent the composition of the company of the set that set the laster in favour of the company of 56171., which was equal to an address in series value of something like 50 per cent. Upon the six months' operations size of 125 ite interest that had accrued on deposits. The directors recommended sizes of 125 ite interest that had accrued on deposits. The directors recommended sizes of 125 ite interest that had accrued on deposits. The directors recommended sizes of 125 ite interest that had accrued on deposits. The directors recommended sizes of 125 ite interest that had accrued on deposits. The directors recommended sizes of 125 ite interest that had accrued on deposits. The directors recommended sizes of 125 ite interest that had accrued on the called-up capital—1s. per share on the first example of 125 ite interest that had accrued to the called-up capital—1s. per share on the sizes of 125 ite interest that had directors were until directors were until the translation of the called-up capital—1s. per share on the sizes of 125 ite interest of 125

be looked forward to as the torning point in this mine, and the commencement of sending point in present, yet be could not help thinking that it was but an act of lastice to simple secessing. The food on since 1850, and who had run the risk of simple secessing. The food on since 1850, and who had run the risk of simple secessing. The food on since 1850, and who had run the risk of simple secessing. The food of a shaft cannot not the course above the four years it would be about 10 per cent. In the course of the cou

£2687	15	8	
1884	18	1	
			2687 15 8

Leaving credit balance £ 802 17 7

EAST GREAT WORK MINING COMPANY.

The ordinary general meeting of shareholders was held at the company's offices, Waterloo-place, Pall Mall, on Wednesday,
Mr. CHAMBERS in the chair.

offices, Waterloo-place, Pall Mall, on Wednesday,

Mr. C. Ambers in the chair.

Mr. C. Strong (the secretary) read the notice convening the meeting, the statement of accounts showing a cash balance of 35l. 13s. 6d., and a credit balance on capital account of 238ll. 10s., and the subjoined reports of the agent and directors:

Your directors meet you on the present occasion with feelings of the greatest annoyance and very considerable disappointment. The anticipations of a great success have not been realised, but your directors would be unjust to themselves, and be casting a most undeserved siur upon the mine, if they led you to infer that your property in Cornavall was not as promising and valuable as stated in the original prospectus of the company, issued in 1863. It cannot be denied that the capital subscribed has not been sufficient to develope the mine effectually, but this misfortune has been greatly increased by so many of the shareholders withholding payment of their calls. Had the calls been properly responded to further progress would have been made in developing the resources of this most valuable property, and the result might have been very different. Since the last meeting 34 fms have been driven, and the prospects of the mine are at this moment most encouraging, but your directors have not sufficient means at their command to seek the riches which undoubtedly exist underground. An execution was lately placed upon the property, which was paid off by the managing director. Under these circumstances, your directors have no other alternative but to recommend that the should be appointed liquidator, at a specified sum. Your directors strongly urge upon their shareholders to aid them in re-forming the company after workers of this rich mineral property.

July 29.—Since the last general meeting, on Sept. 21, the 10 fm. level has been driven

holders to aid them in re-forming the company area its winding up, and the holders to all them in re-forming dividends are in store for the future workers of this rich mineral property.

July 29.—Since the last general meeting, on Sept. 21, the 10 fm. level has been driven west on the Great Work lode about 34 fms.; about 16 fms. of this was in a saving lode for copper and lead ores; the lode in the present end is 2 ft. wide, producing good stones of copper ore, but not sufficient to save. This end is not driven under the ore ground in the 8, at the Moor shaft; the air in the present end is bad. We stoped a little ground in the back of this level; the ore held but very little above the back anywhere, in some places not up to the back. We could do nothing in the bottom of the level on account of the water. Moor shaft is sunk to within about 3 fms. of the back of the 10, on the south part of the lode, but not communicated with the 10. The ore ground seen in the south part of the lode, but not communicated with the 10. The ore ground seen in the south part of the lode, but not communicated with the 10. The ore ground seen in the south part of the lode, but not communicated with the 10. The ore ground seen in the south part of the lode, but not communicated with the 10. The ore ground seen in the south part of the lode, that so the find sufficient to the south part of the canter, on the Great Work lode, shout 14 fms., both producing stones of copper ore, the ventilation not being sufficient to do more at this point. The engine-shaft is sunk from the 10 to the 30, the shaft divided, and footway put in. The 30 cross-cut is driven north 3 fms., and south 4 fms.; there is about 5 fms. more to drive to intersect the lode at this point. The stratum is similar to that in the locality which has produced immense quantities of minerais. I believe shortly after the intersection of the caunter lode in the 30 it would so far drain the 10, on the Great Work lode, that a winze might be sunk on its course below the 10. I have no do

as had been insinuated, it was now proposed to wind-up from personal motives. They were positively bound to wind-up, as the bankers had distinctly refused to advance another penny to the company, and the working miners were unpaid. The conclusions which had been frawn from a certain circular and remarks was, that the company had been robbed by him, and he was now called upon to disgorge; but he would say that, even if he were to agree to do so, there was not a very large amount to disgorge. Of the amount that appeared to have been paid to him by the balance-sheet the greater part was in paid-up shares, which had never been dealt with, and which were perfectly valueless to himself or anyone else, unless the company turned out prosperous. The total amount he had received in cash was 2900,*, and cut of this he had paid, as could be proved by the company's books, if any shareholder thought proper to look at them—1304. to Mr. Popham, 1004. to Messrs, Hancock, Lean, and Thomas, and a written guarantee for 24. 10s. per share; he had paid 3254. on the 200 shares given to Messra, Hancock, Lean, and Thomas, the had paid 3004. to Mr. Bennett; and had himself subserthed for shares, and paid calls to the extent of 12254, his last payment, as shown by the banker's book, which was in Najor Stapictor's hands, being 4004. on July 20. This was simply a rough draft of his principal payments, but there were small items which brought the amount atill nearer to the 2900. As it was, the shareholders would see that he had not got 2501, out of the company, and he certainly expected to make more than that to pay hits for the risk and trouble incurred in the two years of the company's existence. Major Stapiteron's wished, on behalf of Mesars. Buckle, Bannatyne, May, and others, to protest against the company being wound-up as proposed. The only, way to wind up properly was, not voluntarily, but in the Court of Chancery. It was stated that the company was to be wound-up in consequence of the arrears of call; the would, therefore, ask whet

GREAT WHEAL BONNIE MINING COMPANY.

GREAT WHEAL BONNIE MINING COMPANY.

An extraordinary general meeting of shareholders was held at the offices of the company, Basinghall-street, on Wednesday,

Mr. POWELL in the chair.

Mr. Mignon (the secretary) read the notice convening the meeting.

The CHARRMAN said the shareholders had been previously acquainted with the fact that the contractor who had undertaken the work had failed, and had been compelled to submit himself to the Court of Bankruptey. In consequence of that unfortunate circumstance, it was impossible the works could be carried out; and, therefore, the true policy, the directors thought, was to wind-up the company, and return the deposits. The loss was very trifling, for the expense had been very small. That was the only alternative the directors could suggest, for it was impossible to get any contractor to undertake the work upon the same terms. He might mention that the deposit-money had been at interest, which would go towards the liquidation of the expenditure incurred. As far as the directors were concerned, they would not take any remuneration for their trouble. The resolution he had to propose was that the company be wound-up voluntarily.

Mr. JEFRIYS suggested that, as Mr. Mignon, the secretary, was a shareholder, and intimately acquainted with the company's affairs, he should be appointed itquidator.

The Solution explained that the liquidator would be appointed at the confirmatory-meeting, which must be held in not less than fourteen days or more than a month.

A SHARRHOLDER enquired how long it was since the contractor failed?——The CHARMAN explained that he had been in difficulties some time, but the result was not known until very recently. Having been backed up by powerful supporters, the directors had thought he might be enabled to carry out the operations he had undertaken.

The SECRETARY, in reply to a question, stated that some plant had been put upon the mine; but in respect of that the company would not be put to any loss.

The CHARMAN said that, taking all the circumstan

THE GAS PRODUCTS UTILISING COMPANY.

THE GAS PRODUCTS UTILISING COMPANY.

The half-yearly general meeting was held at the London Tavern, on Wednesday.

Mr. A. A. Croll in the chair.

The Secretary having read the notice convening the meeting, on the motion of the Chairman the special resolution passed at the last meeting, altering the date of general meeting, was confirmed.

The directors' report stated that the accounts had been duly audited, as on the last occasion, by Messrs, Quilter, Ball, and Co., as well as by the shareholders' auditors, and that, after deducting all trade charges, and 20 per cent. of the preliminary expenses, the nett profit upon the first years' operations amounted to 74991. 8s. 6d.; that after deducting the amount of dividend paid in February, and the amount (1000), that sum the directors recommend the declaration of a dividend of 5 per cent. for the six months ending June 30, free of income tax, making with that paid in February 10 per cent. for the year, the transfer of 10001. to the reserve fund, making the amount to the credit of that account 20001. leaving 4621. 0s. 7d. to be carried forward. The resident manager reported that the works were in a most efficient state.

The Charrman, in moving the adoption of the report and accounts, said that the shareholders would admit that they were of a most satisfactory character, the dividend, with that they now proposed to declare, amounting to 10 per cent. for the year, while the earnings showed 15 per cent. for that period. It might be asked if the year's returns showed so favourably, why not declare a dividend exceeding that proposed, but the directors though! It better to act on the safe side, and retain a balance which could be used at any time for the benefit of the company. To prove in what estimation they were held, he might state that they had received, during the past six months, three offers for purchase of business concerns in full operation. Two of these thmath, three offers for purchase of business concerns in full operation. Two of these they had declined, but t

SMELTING COPPER ORES.—The invention of Messrs. Peter Spence and H. Davis consists in using, as a flux, the spent shale of the alum manufacture, being the residuum of the shale of the coal measures after it has been acted upon by sulphuric acid for the production of alum. The quantity of such spent shale necessary for each charge of ore will vary with the character of the ore, and, in practice, is easily ascertained by the workman, who will discover that, when a sufficient quantity has been added, the flux or siag will part easily from the regulus or metal, and enable him to skim off and draw out the slag, without the regulus or metal clinging to it. In practice it is found that, by using spent shale for a flux, a siag more than ordinarily free from copper, or, as it is termed, a clean slag, is obtained, which is a matter of great importance in copper smelting, as when the slag is not clean there is a creat loss of copper in consequence. The patentees claim the use of spent shale as a flux in copper smelting.

MANUFACTURE OF SALTS OF CHROMIUM.—Mr. J. K. Leather, of St. Helen's, proposes to mould the chrome ore and lime into blocks, and heats these blocks with as little exposure to the flame as possible (the reverse is the usual practice), as he finds it to be practically impossible to get an oxidising flame free from the reducing flame in the reverberatory furance.

CENTRIFUGAL CASTING.—Mr. A. Larson, of Lund, Denmark, has invented an improved mode of casting from tubes; he proposes to pour the molten iron into a cylinder kept in a state of rapid rotation, the effect of which is to produce a tube of perfectly even bore and good finish. Messrs. Holmberg have patented the invention.

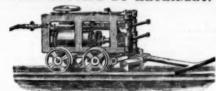
ELIPTICAL BLAST-FURNACES.—At the Dundyvan Ironworks a furnace of this section, and 90 the has heave extend which has heave extend which the section when it is the section when it is a finished when he has a certain when the section of 90 to the late of the section when he has neverted which is to group the molten in the propose of the

ELLIPTICAL BLAST-FURNACES.—At the Dundyvan Ironworks a furnace; this section, of 20 ft. by 12 ft. diameter, and 60 ft. in height, has been erected, which stated to give extraordinary results.

Is stated to give extraordinary results.

ZIRCONIUM.—Since the discovery of aluminium, which was brought about by the aid of the powerful reducer, sodium, chemists have been untiring in their endeavours to obtain the other metals suspected to exist in the bases, which had until then resisted every effort to decompose them. It was thus magnesium was found soon after aluminium; and now M. Troost, in a paper addressed to the Academy of Sciences, has described his researches on zirconium, or the base of zirconia, which is extracted from the precious stone called hyacinth zircon, or "jargon," remarkable for its delicate tints, varying between white and red. M. Troost wished to determine whether zirconium, aiready found in an amorphous state by Berzelius, was a metal similar to magnesium or aluminium, or a metalloid not unlike carbon, boron, or silicium. His first experiments were directed towards obtaining zirconium in a crystallised state, and in this he succeeded by heating one part of double fluoride of zirconium and potassium with one part and a half of aluminium in a crudible made of the charcoal which accumulates in the gas reforts, and at a temperature equal to that required for melting from. When the crucible has cooled, the surface of the button of aluminium which has been formed is covered with thin crystalline lamines, pressed together like the leaves of a book. The aluminium may be removed by dissolving it in hydrochioric sold diluted with twice its volume of water; by this means the lamines of zirconium may be removed, but there still remains some, consisting of an alloy of alluminium and zirconium. The pure metal, in the crystallised state as described, is a very hard substance, oig rest brilliancy, and resembling antimony in colour, itsure, and brittleness. The laminae are easy to cleave in two directions inclined to each other at about 30°, their planes being inclined to the third or ground plane at an angle of about 108°. The density of crystallised zirconium is 4·15. Chiorine combines with it at a

COAL CUTTING BY MACHINERY.

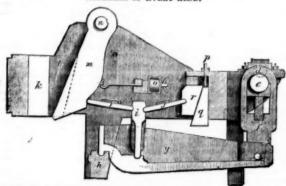


MESSES. RIDLEY AND CO. have, by recently PATENTED IMPROVEMENTS, COMPLETED their TRUNK COAL CUTTING MACHINE, WORKED by COMPRESSED AIR, and are NOW PREPARED to NEGOCIATE for the USE, and to SUPPLY MACHINES, which will be found by COMBINE SIMPLICITY of CONSTRUCTION with PORTABILITY and ECONOMISM WORKING. By the use of these machines a CONSIDERABLE SAVING of COAL is EFFECTED, and the COST of LABOUR MUCH REDUCED. Each machine will be guaranteed as to its capabilities, &c.
All applications to be made to Messrs. RIDLEY and Co., No. 11, South-street, Finsbury London, E.C.; or Mr. PERCH BANKART, agent, 9, Clement's-lane, E.C.

**COLLIERY PROPRIETORS are CAUTIONED against PURCHASING OF USING MACHINES, the construction of which will constitute an INFRINCIPAENT of the ABOVE PATENT.

BLAKE'S PATENT STONE BREAKER

OR ORE CRUSHING MACHINE, FOR REDUCING TO SMALL FRAGMENTS ROCKS OBES, AND MINERALS OF EVERY KIND.



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The above section lilustrates Blake's Stone Breaker, just as made the last five years and is fully protected in every part by patents.

Extract from Specification:—A short but powerful vibration is imparted to one or both of the jaws by any convenient arrangement, and combination of powerful levers, worked by a crank or secentric on the main shaft.

worked by a crank or eccentric on the main shaft.

LEGAL PROCEEDINGS will be taken at once against any person or persons found making, using, or vending any machine, the construction of which will constitute an infringement on the above patent. Read extracts of testimonials:—

Alkali Works, near Wednesbury.—I at frat thought the outlay too much for so simple an article, but now think it money well spent.

William Hunt.

William Hunt.

Courle by In mechine has been 4 tong of head missions in 20 mignitudes, for the

Our 15 by 7 in. machine has broken 4 tons of hard winstone in 20 minutes, for fine foad metal, free from dust,

Mesars. Ond and Maddison.

Stone and Lime Merchants, Darlington.

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of the hardest copper ore stone per hour.

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H. R. MARSDEN, SOHO FOUNERY,

MEADOW LANE, LEEDS,

Only maker in the United Kingdom.

B ASTIER'S PATENT CHAIN PUMPA APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE, FIRE, &c.

APPLICABLE TO ALL KINDS OF MINES, DRAIN-AGE, WELLS, MARINE, FIRE, &c.

J. U. Bastiers begs to call the attention of proprietors of nines, engineers, architects, farmers, and the public in general, to his new pump, the cheapest and most efficient ever introduced to public notice. The principle of this new pump is simple and effective, and its action is so arranged that accidental breakage is impossible. It occupies less space than any other kind of pump in use, does not interfere with the working of the shafts, and unites lightness with a degree of durability aimost imperishable. By means of this hydraulic machine water can be raised economically from wells of any depth; it can be worked either by steam-engine or any other motive power, by quick or slow motion. The following statement presents some of the results obtained by this hydraulic machine as daily demonstrated by use:—

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3.—It occupies a very small space.

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5.—It raises water from any depth with the slightest in.

and economy.

5.—It raises with the water, and without the alightest injury to the apparatus, and mud, wood, stone, and every object of a smaller diameter than its tube.

6.—It is easily removed, and requires no cleaning or at-

6.—It is easily removed, and requires no cleaning or attention.

BASTIER'S PATENT CHAIN-PUMP may be seen daily in operation at Messrs. SAMUEE BERGER AND Co.'s Patent Rice Starch Works, Bromley-by-Bow, London, E. Cards of admission to be had on application to the inventor and patentee, Mr. J. U. Bastier, C.E., 142, Gower-street North, London.

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J. U. BASTIER, sole manufacturer, will CONTRACT to
ERECT his PATENT PUMP at HIS OWN EXPENSE,
and will GUARANTEE IT FOR ONE YEAR, or will GRANT LICENSES, to
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OFFICES, 142, GOWER STREET NORTH, LONDON.
London, March 21, 1859. Hours from Tentill Four. J. U. BASTIER

Now ready, price 2s. 6d., by post 32 penny stamps,

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THE HARDWARE WEEKLY MESSENGER.

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AND HARDWARE WEEKLY MESSENGER.

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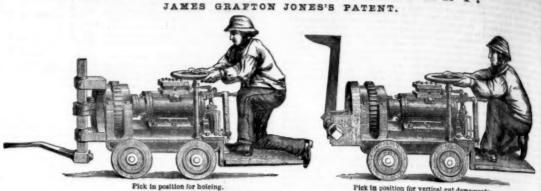
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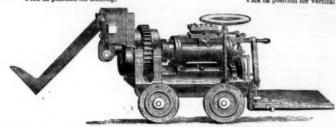
THE STOCKTON AND HARTLEPOOL MERCURY MIDDLESBOROUGH NEWS (published at Hartlepool) is eminently the organ of the Coal, Iron, and Iron Ship-building Trades in the extensive Mining and Marating District of South Durham and Cleveland, with which it has been closely identified sing its origin. The "Mercury" was for years the only newspaper published in South Jurham and Cleveland, and is yet the only one published more than once a week. Advertisements to be forwarded to the publisher, Mr. John H. Bell, Southgate, Hartlebool.

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Published every Saturday, price 2d., or quarterly 2s. 2d
THE DAILY CHRONICLE AND NORTHERN COUNTIES ADVERTISER.
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MACHINERY. COAL CUTTING





Pick in position for vertical cut upwards

Messrs. Jones and Levick, proprietors of this patent, are prepared to supply these Machines, which are on an improved principle, and are one structed to work the coal at any angle from the horizontal to the vertical, thus rendering them capable of "holeing" at any angle, and of diring "headings." They are simple and substantial in construction, and are not likely to get out of order. They are already successfully employed in the Barnsley coal district, and are being introduced into the South Wales and other coal mining districts. They are also suitable for mining the argillaceous ironstones of the coal measures, as well as working other mines and quarries.

N.B.-Air Compressing Machinery will be supplied, or plans and specifications furnished.

Applications to be made to Messrs. Frederick Levick and Co., 4, Charlotte-row, Mansion House, London; or Messrs. Levick and Simples, laina Ironworks, near Newport, Monmouthshire.

Prize Medal, International Exhibition, 1862.

CHAPLIN'S PATENT PORTABLE STEAM ENGINES AND BOILERS

STATIONARY ENGINE. From 1 to 30 horse power.

PORTABLE STEAM CRANE. 1 to 30 tons.

CONTRACTORS' LOCOMOTIVE. 6 to 27 horse power.

From the STRENGTH, SIMPLICITY, and COMPACTNESS of these ENGINES, they are now extensively used for general purposes; also in situations where states the ordinary construction cannot be applied.

of the ordinary construction cannot be applied.

STATIONARY ENGINES,—require no building in, nor chimney stalk, and with our patent forced combustion apparatus will burn inferior qualities of coal, weed, or as These engines are specially suited for shipment, and may be packed inside the boiler, to economise freight.

PORTABLE STEAM CRANES,—for wharf or railway, with wrought-fron carriages on wheels, link motion, foot brake, &c., all under the easy control of one man; their alzes holet, lower, and turn round in either direction by steam.—These Cranes were selected by H.M. Commissioners for receiving and sending away the heavy machineral International Exhibition of 1862.

International Exhibition of 1862.

CONTRACTORS' LOCOMOTIVES,—are adapted to work on rails or tramways, of a guage from 2 feet upwards. They are complete and efficient lecomotives, simple struction, and the working parts easily got at for repair. They draw heavy lodes at reduced speeds. These engines are usually sent in one package, ready for work on any LIGHT PORTABLE HOISTING, WINDING, AND PUMPING ENGINES, ETC.

ALEXANDER CHAPLIN AND CO., CRANSTONHILL ENGINE WORKS, GLASGOW.

LONDON OFFICE,—9, ADAM STREET, ADELPHI, W.C. LONDON DEPOT AND WHARF,—LOWER FORE STREET, LAMBETH, S.

Several engines of cache class were to street or and all our manufactures out to be a property of the class were to street.

Several engines of each class kept in stock, for sale on hing; and all our manufactures quanantized as to epiciency, natenial, and worklassift.

Parties are cautioned against using or purchasing imilations or infringements of these patent manufactures.

International Exhibition, 1862-Prize Medal.



JAMES RUSSELL AND SONS
(the original patentees and first makers of wrenght-frontubes), of the CROWN PATENT TUBE WORKS, WEDNESBURY, STAFFORDSHIRE, have been AWARDED a PRIZE MEDAL for the "good work" displayed in the wrought-frontubes and fittings.

Warehouse, 81, Upper Ground-street, London, 8

BICKFORD'S PATENT SAFETY-FUSE OBTAINED the PRIZE MEDALS at the ROYAL EXHIBITION of 1851, at the INTERNA-DNAL EXHIBITION of 1862, in London, and at the IMPERIAL EXPOSITION



BICKFORD, SMITH, AND CO.
TUCKINGMILL, CORNWALL, MANUFACTURERS of PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to use not of their muscure, beg to call the attention of the trade and public to the following announcement:—

EVERY COIL of FUSE MANUFACTURED by tham (was TUREADS PASSING THROUGH the COLUMN of GUNION-DER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPALATE THREADS AS THEIR TRADE MARK.

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ENGINEERS, IRONFOUNDERS, BOILER MAKERS, and MANUFACTURERS of EVERY DESCRIPTION of RAILWAY MACHINERY.



LOCOMOTIVE ENGINES, for MINERAL and CONTRACTORS' RAILWAYS, LOCKIOTIVE ENGINES, 107 MINERAL and CONTRACTOR ARTHURSTS, of the best materials and workmanship, always in progress. These engines are designed to supply the chief requisites in tank locomotives—viz., reduction of the overhanging weight at the fire-box end, proper distribution of the weight upon the wheels, and keeping the centre of gravity low. These are accomplished by making the fire-box and its shell on an improved principle, which enables the driving axle to be placed further back without interfering with the eccentrics and valve gear, which are of the usual simple description. LONDON OFFICES, 34, CANNON STREET WEST.

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